WHAT IS CLAIMED:

1. An emissive polymer layer that includes at least one polymer chain, a particular one of said at least one polymer chain, comprising:

at least one first monomer;

at least one second monomer, wherein each of said at least one first monomer and each of said at least one second monomer are coupled together to form a portion of said particular polymer chain; and

two end groups, wherein one of said two end groups is coupled to one end of said portion of said particular polymer chain and another one of said two end groups is coupled to an opposite end of said portion of said particular polymer chain, and

wherein only said two end groups emit visible light.

2. The emissive polymer layer of claim 1 wherein

said at least one first monomer and said at least one second monomer have different properties.

3. The emissive polymer layer of claim 1 wherein

said at least one first monomer provides high electron mobility; and

said at least one second monomer provides high hole mobility.

4. The emissive polymer layer of claim 1 wherein

said two end groups are fluorescent centers, phosphorescent centers, or charge traps.

5. The emissive polymer layer of claim 1 wherein

said two end groups trap any one of: (1) electrons, (2) holes, or (3) electrons and holes.

6. The emissive polymer layer of claim 1 wherein at least one of:

(1) a difference between a LUMO level of said one of said two end groups and a LUMO level of said portion of said particular polymer chain is at least 0.1eV; and

(2) a difference between a HOMO level of said one of said two end groups and a HOMO level of said portion of said particular polymer chain is at least 0.1eV.

7. The emissive polymer layer of claim 1 wherein

a concentration of said two end groups in said particular polymer chain is much less than a concentration of said at least one first monomer or a concentration of said at least one second monomer.

8. The emissive polymer layer of claim 1 wherein

a concentration of said two end groups in said particular polymer chain is less than 0.5% of a concentration of said at least one first monomer or a concentration of said at least one second monomer.

9. The emissive polymer layer of claim 1 wherein

a concentration of said two end groups in said particular polymer chain is less than 0.5% of the lesser of a concentration of said at least one first monomer or a concentration of said at least one second monomer.

10. The emissive polymer layer of claim 1 wherein each of said at least one first monomer and each of said at least one second monomer coupled together includes

each of said at least one first monomer coupled to a corresponding one of said at least one second monomer to form an alternating pattern of first monomers and second monomers.

11. A method to produce a particular one of at least one polymer chain of an emissive polymer layer, comprising:

coupling together each of at least one first monomer and each of at least one second monomer to form a portion of said particular polymer chain; and

coupling one of two end groups to one end of said portion of said particular polymer chain and another one of said two end groups to an opposite end of said portion of said particular polymer chain,

wherein only said two end groups emit visible light.

12. The method of claim 11 wherein

said at least one first monomer and said at least one second monomer have different properties.

13. The method of claim 11 wherein

said at least one first monomer provides high electron mobility; and

said at least one second monomer provides high hole mobility.

14. The method of claim 11 wherein

said two end groups are fluorescent centers, phosphorescent centers, or charge traps.

15. The method of claim 11 wherein

said two end groups trap any one of: (1) electrons, (2) holes, or (3) electrons and holes.

16. The method of claim 11 wherein at least one of:

(1) a difference between a LUMO level of said one of said two end groups and a LUMO level of said portion of said particular polymer chain is at least 0.1eV; and

(2) a difference between a HOMO level of said one of said two end groups and a HOMO level of said portion of said particular polymer chain is at least 0.1eV.

17. The method of claim 11 wherein

a concentration of said two end groups in said particular polymer chain is much less than a concentration of said at least one first monomer or a concentration of said at least one second monomer.

18. The method of claim 11 wherein

a concentration of said two end groups in said particular polymer chain is less than 0.5% of the lesser of a concentration of said at least one first monomer or a concentration of said at least one second monomer.

19. The method of claim 11 wherein coupling together each of said at least one first monomer and each of said at least one second monomer includes

coupling each of said at least one first monomer to a corresponding one of said at least one second monomer to form an alternating pattern of first monomers and second monomers.

20. A method to emit visible light through an emissive layer, said emissive layer includes at least one polymer chain, said method comprising:

transporting an electron or a hole from one end of a portion of a particular one of said at least one polymer chain to an opposite end of said portion of said particular polymer chain, said portion of said particular polymer chain includes at least one first monomer and at least one second monomer that are coupled to each other; and

emitting said visible light at one of two end groups, a first one of said two end groups coupled to said one end of said portion of said particular polymer chain and a second one of said two end groups coupled to said opposite end of said portion of said particular polymer chain.

21. The method of claim 20 further comprising

capturing at least one of: said electron and said hole at said first one of said two end groups.

22. The method of claim 20 wherein at least one of:

(1) a difference between a LUMO level of said first one of said two end groups and a LUMO level of said portion of said particular polymer chain is at least 0.1eV; and

(2) a difference between a HOMO level of said first one of said two end groups and a HOMO level of said portion of said particular polymer chain is at least 0.1eV.

23. The method of claim 20 wherein

emitting said visible light includes light emission occurring due to recombination, fluorescence, or phosphorescence.

24. The method of claim 20 wherein

said at least one first monomer and said at least one second monomer have different properties.

25. The method of claim 20 wherein

said at least one first monomer provides high electron mobility; and

said at least one second monomer provides high hole mobility.

26. An organic light emitting diode ("OLED") device, comprising:

a substrate;

a first electrode on said substrate;

an organic stack on said first electrode;

a second electrode on said organic stack,

wherein said organic stack includes an emissive polymer layer, and

wherein said emissive polymer layer includes at least one polymer chain and a particular one of said at least one polymer chain includes

at least one first monomer;

at least one second monomer, wherein each of said at least one first monomer and each of said at least one second monomer are coupled together to form a portion of said particular polymer chain; and

two end groups, wherein one of said two end groups is coupled to one end of said portion of said particular polymer chain and another one of said two end groups is coupled to an opposite end of said portion of said particular polymer chain,

wherein only said plurality of end groups emit visible light.

27. The OLED device of claim 26 wherein said organic stack further includes a hole transporting layer, said hole transporting layer is between said emissive layer and said first electrode or said second electrode.

28. The OLED device of claim 26 wherein said organic stack further includes another emissive layer, wherein said other emissive layer has a different type of two end groups than said two end groups of said emissive layer.

29. The OLED device of claim 26 wherein said emissive polymer layer is deposited by spin coating, ink jet printing, or screen printing.

30. The OLED device of claim 26 wherein said OLED device is an OLED display, or an OLED light source used for general purpose lighting.